CONTENTS

Volumetric behaviour of binary systems of cyclohexane with the hexanol isomers at 298.15 K
J. Ortega, J.S. Matos and E. Perez (Las Palmas, Spain) 1

Determination of the kinetic parameters of the reaction between SO_2 and CaO using the thermogravimetric technique
A.F. Shaaban (Cairo, Egypt) 9

A thermodynamic evaluation of the Ti–N system
C. Vahlas, P.Y. Chevalier and C. Bernard (Saint Martin d'Hères, France), B.D. Ladouce, (Serquigny, France) and L. Vandenbulcke (Orleans, France) 23

Preparation, characterization, thermal and electrical studies of poly(4-vinylpyridine) and its cobalt(II) bromide complex
J.R. Allan, B.R. Carson and K. Turvey (Edinburgh, UK), J. Birnie and D.L. Gerrard (Sunbury, Middlesex, UK) 39

Détermination simultanée de l'enthalpie, du coefficient de partage et de l'entropie de transfert eau/*n*-octanol de l'éphédrine par titrimétrie thermométrique: aspects cinétiques
G. Burgot and J.-L. Burgot (Rennes, France) 49

Molecular alloys in the series of *para*-disubstituted benzene derivatives. Part 6. The *para*-dichlorobenzene–*para*-chloroiodobenzene system
T. Calvet, M. Labrador, E. Tauler and M.A. Cuevas Diarte (Barcelona, Spain), E. Estop (Bellaterra, Spain) and Y. Haget (Talence, France) 61

Thermal analysis of basic magnesium carbonate containing different alkali metal carbonates
V.R. Choudhary, S.G. Pataskar, M.Y. Pandit and V.G. Gunjikar (Pune, India) 69

A new high-temperature thermocouple assembly for heat-flux differential scanning calorimetry
H. Feng and P.G. Laye (Leeds, UK) 81

Thermodynamic properties of binary liquid thallium–selenium solutions
G. Morgant, Y. Feutelais and B. Legendre (Châtenay-Malabry, France) and J. Schnitter (Osnabrück, FRG) 89

The second virial coefficient of water and heavy water: a computational evaluation of the isotopic difference within the MCY-type semi-rigid potentials
Z. Slanina (Mainz, FRG) 99

The microcalorimetric approach to human sperm physiology
M.L. Antonelli, M. Luciani and L. Silvestroni (Rome, Italy) 107

Thermal decomposition of mechanically activated sphalerite
P. Baláž (Košice, Czechoslovakia) and I. Ebert (Berlin, FRG) 117

Temperature and saturation effects on diffusion of carbon dioxide through Topopah Spring Tuff. Part I.
T. Bardakci (Greensboro, NC, USA) 125

The effect of temperature on diffusion of iodine through Topopah Spring Tuff. Part II
T. Bardakci (Greensboro, NC, USA) 139

A study of the transport properties of solvent desorption from experimental films using thermogravimetric analysis
B.D. Barr-Howell and E.J. Gordon (Naperville, IL, USA) 147

Role of semiconductive oxides in the thermal decomposition of barium oxalate
D. Bhatta, M.K. Sahoo and Ms.S. Mishra (Bhubaneswar, India) 155

Thermodynamics of 2-pyrrolidinone + *n*-alkanol binary mixtures: activation properties
B. Garcia, C.A. Herrera and J.M. Leal (Burgos, Spain) 159

Regularities in the formation of selenites in the three-component system Al_2O_3–SeO_2–H_2O and their properties
G.G. Gospodinov (Bourgas, Bulgaria) 169

Thermal octahedral ⇄ square-planar transformation of diamine complexes of nickel(II) trifluoromethanesulphonate in the solid phase
S. Koner and N. Ray Chaudhuri (Calcutta, India) 177

Influence of temperature on the extraction of uranium(VI) and plutonium(IV) from nitric acid into *n*-dodecane by di(2-ethylhexyl)sulphoxide
G.R. Mahajan, M.S. Murali, D.R. Prabhu, J.P. Shukla, G.M. Nair and P.R. Natarajan (Bombay, India) 185

Thermogravimetric and dilatometric studies of $LaBa_2Cu_{3-y}M_yO_x$ (M=Ni, Li; $y = 0, 0.1$)
A.C. Momin, E.B. Mirza and M.D. Mathews (Bombay, India) 191

Enthalpies of solution of glycine in aqueous electrolyte solutions at 298.15 K
B. Pałecz (Łódź, Poland) 199

A study of thermal analytical values for coal blends burned in an air atmosphere
W.-P. Pan and Y. Gan (Bowling Green, KY, USA) and M.A. Serageldin (Winston-Salem, NC, USA) 203

Synthesis, characterisation and thermal studies of resacetophenoneoxime–thiourea–trioxane resins
H.B. Pancholi and M.M. Patel (Gujarat, India) 219

Enthalpy of mixing in KCl–KBr mixed crystals at 25 °C
K. Papazova-Dencheva (Sofia, Bulgaria), V. Pekárek, J. Nývlt and M. Šípek (Prague, Czechoslovakia) 225

Thermal behaviour of polymer blends containing poly(mono-itaconates) and poly(thiocarbonates)
D. Radić and L. Gargallo (Santiago, Chile) 241

Thermal characteristics of GAP, GAP/BDNPA/BDNPF and PEG/BDNPA/BDNPF and the energetic composites thereof
S.-M. Shen and A.-L. Leu (Tachi, Taiwan), S.-I. Chen and H.-C. Yeh (Lung-tan, Taiwan) 251

Kinetics of oxidation of Cr_3B_4 cermets cemented by different metallic binders. Part I. Using iron as a binder
S.S. Younis, A.M. Khater, M.A. El Masry, E.N. Mahdy and M.F. Abadir (Giza, Egypt) 269

The high temperature heat capacities of indium(I) bromide and indium(III) bromide by differential scanning calorimetry
P.J. Gardner and S.R. Preston (Egham, UK) 281

ETA studies of the surface layer of titanium oxide powders prepared by various grinding and sieving treatments
T. Ishii, N. Tashiro and T. Takemura (Sapporo, Japan) 289

Use of databases in thermal analysis
L. Reich (Hoboken, NJ, USA) 303

Thermal decomposition reactions of nickel(II) complexes under quasi-equilibrium conditions. Part I. Study of the relationship between thermal parameters and degree of distortion of the coordination polyhedron of the complexes $NiL_4(NCS)_2$ (L = piperidine, pyridine or 3-ethylpyridine)
E. Jóna, I. Horváth, M. Kubranová and M. Koman (Bratislava, Czechoslovakia) 307

The ion–dipole interaction mechanism of macrocyclic ethers with ^{13}C dipole–dipole relaxation time measurements. Part 9. The stabilities of 18-crown-6 complexes with Na^+ and K^+ in D_2O and methanol-d
Ç. Erk (Dicle, Diyarbakır, Turkey) 317

The standard enthalpy of formation of silver acetylide
A. Finch, P.J. Gardner, A.J. Head and H.S. Majdi (Egham, UK) 325

Thermogravimetry of surface silt in the province of Tucuman (Argentina): kinetic study
P.C. Lopez and H. Herrera (Santiago del Estero, Argentina) and G. Bossi (Tucuman, Argentina) 331

Note

Calorimetric study of the reaction between lanthanoid trifluoromethanesulphonates and dimethylformamide (DMF) in ethanolic solution
L.B. Zinner and G. Vicentini (São Paulo, Brazil), D.M.A. Melo and O.A. Oliveira (Natal, Brazil) 341

Author Index 345

Subject Index 347